Material Safety Data Sheet **RESOURCE ALLOYS & METALS, INC.**

Chemical Name	Common Name
Selenium	Selenium

Section I

Manufacturer's Name	Emergency Telephone Number
Resource Alloys and Metals, Inc.	561/790-7200
Address	**Telephone Number for Information**
250 Business Parkway, Suite 1	561/790-7200
Royal Palm Beach, FL 33411	**Date Prepared** 08/01/05

Rec'd 11/5/13

Section II – Hazard Ingredients/Identity Information

Hazardous Components	OSHA PEL (mg/m³)		ACGIH TLV (mg/m³)		%
	TWA	Ceiling	TWA	STEL	
Selenium	0.2	none	0.2	none	>99.5

Section III – Physical/Chemical Characteristics

Boiling Point	1265° F	**Specific Gravity (H_20 = 1)**	4.81
Vapor Pressure (mm Hg.)	1 @ 673° F	**Melting Point**	423° F
Vapor Density (AIR = 1)	NA	**Evaporation Rate**	NA
Solubility in Water	Not soluble	**Appearance and Odor**	Steel gray, odorless solid

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NA	Not flammable	NA	NA

Extinguishing Media
Class D fire extinguisher, dry chemical or dry sand. Do not use water.

Special Fire Fighting Procedures
Do not use water. Wear SCB apparatus if necessary.

Unusual Fire and Explosion Hazards
Dust may generate fire. Never use water on molten metal or charge wet metal or explosion will occur.

Section V – Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable (at room temp)	X	Wet or humid conditions

Incompatibility (Materials to Avoid)
Avoid contact with oxidizing agents. Avoid water with molten metal.

Hazardous Decomposition or Byproducts
At elevated temperatures, toxic oxide fumes may be evolved.

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?	Eye Contact?
	yes	yes	yes	yes

Health Hazards
Cutting, melting, welding, soldering, or mechanical processing may produce dusts or fumes containing selenium and/or its oxides. Breathing these dusts or fumes may present potentially significant health hazards. Dusts or fumes containing selenium may cause skin or eye irritation. Ingestion of significant amounts of material is unlikely.

Carcinogenicity:	NTP?	IARC?	OSHA?
	yes	no	no

Signs and Symptoms of Exposure
Headache, chills, fever, metallic taste or garlic breath.

Medical Conditions Generally Aggravated by Exposure
Diseases of the kidneys, skin, liver, lungs and gastrointestinal tract.

Emergency and First Aid Procedures
Eye and skin contact – flush eyes with large amounts of water for at least 15 minutes; wash affected area with large amounts of water and soap. *Inhaled* – remove to fresh air. *Ingested* – Induce vomiting, give water or milk. In each case, seek medical attention following immediate care.

Section VII – Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

If metal is in a molten state, avoid contact with water or moisture. If it is in a solid state, be careful of sharp edges. Vacuum dust.

Precautions to be Taken in Handling and Storing

Use good housekeeping practices to prevent accumulations of dust and keep airborne dust concentrations at a minimum. Avoid breathing dust or fumes. Store metal in a dry area away from incompatible materials. Keep dust away from sources of ignition. Preheat metal when required to evaporate surface moisture prior to melting. Ice, snow, grease, oil or moisture can cause explosions. Remove these contaminants before charging ingot to melting furnace.

Other Precautions

Use safe foundry practices.

Section VIII – Control Measures

Respiratory Protection

A mask/full-face respirator should be worn if air contaminant concentrations exceed exposure limits or if excessive dust concentrations occur.

Ventilation

Provide ventilation necessary to maintain concentrations of air contaminants below recommended levels.

Eye Protection

Goggles should be worn if excessive dust concentrations occur and when working with molten metal.

Protective Clothing

Gloves should be worn to avoid cuts and during operations with significant skin contact (i.e. grinding). Full protective clothing should be worn by workers exposed to heavy concentrations of dust or high heat and during alloying operations to prevent injury from molten metal splashing, spilling, etc.

Work/Hygienic Practices

As necessary to maintain exposures below TLVs and PELs and follow good normal hygienic practices.